

Checking memory usage of a batch job using qps

Category: Memory Usage on Pleiades

User Jeff West provided us with a Perl script called *qps* (available under /u/scicon/tools/bin) that securely connects (via ssh) into each node of a running job and gets process status (*ps*) information on each node.

Syntax:

```
pfel% qps jobid
```

Example:

```
pfel% qps 26130
```

```
*** Job 26130, User abc, Procs 1
NODE      TIME      %MEM %CPU STAT TASK
r1i0n14  10:17:13    2.8 99.9 RL  ./a.out
r1i0n14  10:17:12    2.9 99.9 RL  ./a.out
r1i0n14  10:17:18    2.9 99.9 RL  ./a.out
r1i0n14  10:16:34    2.9 99.8 RL  ./a.out
r1i0n14  10:17:11    2.9 99.9 RL  ./a.out
r1i0n14  10:17:13    2.9 99.9 RL  ./a.out
r1i0n14  10:17:12    2.9 99.9 RL  ./a.out
r1i0n14  10:17:15    2.9 99.9 RL  ./a.out
```

Note: The % memory usage by a process reported by this script is the percentage of memory in *the whole node*. This script currently works only when users specify `ncpus=8` in the PBS resource request.

If you want to use *qps* to monitor the memory used by a job that requested a number of CPUs other than 8, then make a copy of the *qps* script and change that single occurrence of '8' on line 95 to the appropriate number of CPUs requested on each node.

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